Yellow Highlight = New Project to list Red Text = Change from previous version

Blue Text = will be removed from list Green Highlight = Annual Equipment Replacement Programs

W Total = Western Only Costs
O Total = Trust and Joint Participation Costs
FY Total = Sum of W Total and O Total MPS Split = Multiple Power System Cost Split.

	Fund	PROJECT			FY12					FY13		
PROJECT	Power Sys	TOTAL	W Total	W PD	W Non-PD	O Total	FY TOTAL	W Total	W PD	W Non-PD	O Total	FY TOTAL
Transmission Lines												
Environmental Support for Lands, Access Roads, and ROW's	CRSPVMF	450	110	10	100		110	110	10	100		110
Lidar Closeout at Pinnacle Peak and Rogers	CRSPVMF	15	15	15			15					
Pinnacle Peak-Rogers ROW Agreement	CRSPVMF	6,100						6,100	100	6,000		6,100
T-Line SubTotal		6,565	125	25	100		125	6,210	110	6,100		6,210
												1
Substations												
Replacement of FX Capacitor Maintenance Breakers at Flagstaff, Glen Canyon,												
and Pinnacle Peak	CRSPVMF	2,000						200	50	150		200
Completion of Flagstaff Breaker Replacement	CRSPVMF	150	150	150			150					
Main Battery Replacement and Room Addition at Pinnacle Peak	CRSPVMF	148	130	6	124		130	5	5			5
Main Battery Replacement at Glen Canyon	CRSPVMF	71	65		65		65	6	6			6
Completion of 230/130 kV Transformer AddItion at Garkane	CRSPVMF	950	950	750	200		950					
Reconfigure 69kV Yard at Glen Canyon Substation	CRSPVMF	5,300						1,500	700	800		1,500
Substation SubTotal		8,619	1,295	906	389		1,295	1,711	761	950		1,711
Communications												
Misc. Communications Facilities Replacement (CRSP) at PSM/TOW in FY12	CRSPVMF	385	35	10	25		35	35	10	25		35
Microwave Upgrades at Mexican Hat	CRSPVMF	1,024	1,024	384	640		1,024					
WIN/CIP at Flagstaff, Pinnacle Peak, and Glen Canyon	CRSPVMF	60	30	20	10		30	15	5	10		15
RTU Replacement at Flagstaff, Pinnacle Peak, Glen Canyon, and Navajo	CRSPVMF	640	320	200	120		320	320	200	120		320
Radio Towers/Grounding at PSM and TOW	CRSPVMF	75	75	13	62		75					
Phase Shift Bus Differential Relay Replacement at Glen Canyon	CRSPVMF	95	95	80	15		95					
Unit Dropping Scheme at Flagstaff, Pinnacle Peak, and Glen Canyon	CRSPVMF	100	100	98	2		100					
Communication Buildings at Zilmer and Lolamai	CRSPVMF	501	501	150	351		501	15	15			15
Communications SubTotal		2,880	2,180	955	1,225		2,180	385	230	155		385
												1
Control, Protection and Metering												
Protective Relay Replacements at Glen Canyon and Powell in FY12	CRSPVMF	1,542	332	332			332	220	220			220
												1
Mobile & Heavy Equipment												
Test Equipment Replacements (CRSP)	CRSPVMF	640	40		40		40	60		60		60
												<u> </u>
Mobile & Heavy Equipment SubTotal		640	40		40		40	60		60		60
Programmatic Improvements												<u> </u>
Physical Security Upgrades - Flagstaff	CRSPVMF	45	45	5	40		45					
Security Camera Upgrades - Glen Canyon	CRSPVMF	45										ļ
	<u> </u>			<u> </u>	<u> </u>					<u> </u>	<u> </u>	<u> </u>
Programmatic Improvements SubTotal		90	45	5	40		45					
DSW FY12 CRSP CIP Grand Total		20,336	4.017	2,223	1,794		4.017	8.586	1.321	7.265		8,586
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	Fund	PROJECT			FY14		FY15					
PROJECT	Power Sys	TOTAL	W Total	W PD	W Non-PD	O Total	FY TOTAL	W Total	W PD	W Non-PD	O Total	FY TOTAL
Transmission Lines												
Environmental Support for Lands, Access Roads, and ROW's	CRSPVMF	450	120	10	110		120	110	10	100		110
Lidar Closeout at Pinnacle Peak and Rogers	CRSPVMF	15										
Pinnacle Peak-Rogers ROW Agreement	CRSPVMF	6,100										
T-Line SubTotal		6,565	120		110		120	110	10	100		110
Substations												
Replacement of FX Capacitor Maintenance Breakers at Flagstaff, Glen Canyon,												
and Pinnacle Peak	CRSPVMF	2,000	200	50	150		200	200	50	150		200
Completion of Flagstaff Breaker Replacement	CRSPVMF	150										
Main Battery Replacement and Room Addition at Pinnacle Peak	CRSPVMF	148										
Main Battery Replacement at Glen Canyon	CRSPVMF	71										
Completion of 230/130 kV Transformer Addition at Garkane	CRSPVMF	950										
Reconfigure 69kV Yard at Glen Canyon Substation	CRSPVMF	5,300	1,900	450	1,450		1,900	1,900	450	1,450		1,900
Substation SubTotal		8,619	2,100	500	1,600		2,100	2,100	500	1,600		2,100
Communications												
Misc. Communications Facilities Replacement (CRSP) at PSM/TOW in FY12	CRSPVMF	385	35	10	25		35	35	10	25		35
Microwave Upgrades at Mexican Hat	CRSPVMF	1,024		-					-			
WIN/CIP at Flagstaff, Pinnacle Peak, and Glen Canyon	CRSPVMF	60	15	5	10		15					
RTU Replacement at Flagstaff, Pinnacle Peak, Glen Canyon, and Navajo	CRSPVMF	640	_	_								
Radio Towers/Grounding at PSM and TOW	CRSPVMF	75										
Phase Shift Bus Differential Relay Replacement at Glen Canyon	CRSPVMF	95										
Unit Dropping Scheme at Flagstaff, Pinnacle Peak, and Glen Canyon	CRSPVMF	100										
Communication Buildings at Zilmer and Lolamai	CRSPVMF	501										
Communications SubTotal	İ	2,880	50	15	35		50	35	10	25		35
Control, Protection and Metering												
Protective Relay Replacements at Glen Canyon and Powell in FY12	CRSPVMF	1,542	110	110			110	110	110			110
		,-	-	-				-	_			
					1					1 1		
Mobile & Heavy Equipment												
Test Equipment Replacements (CRSP)	CRSPVMF	640	60		60		60	60		60		60
, , ,												
Mobile & Heavy Equipment SubTotal	Ī	640	60	ĺ	60		60	60		60		60
, , ,	Ì											
Programmatic Improvements												1
Physical Security Upgrades - Flagstaff	CRSPVMF	45										
Security Camera Upgrades - Glen Canyon	CRSPVMF	45	45	5	40		45			35		1
,	1			1						1		1
Programmatic Improvements SubTotal	i	90	45	5	40		45			35		i
Frogrammatic improvements SubTotal	I.	30	40	J	40		40			33		
					16:-							
DSW FY12 CRSP CIP Grand Total		20,336	2,485	630	1,845		2,485	2,415	630	1,820		2,415

	Fund	PROJECT	ECTÍ FY16							FY17					
PROJECT	Power Sys		W Total	W PD	W Non-PD	O Total	FY TOTAL	W Total	W PD	W Non-PD	O Total	FY TOTAL			
		101712				0.010.					0 1014				
Transmission Lines															
Environmental Support for Lands, Access Roads, and ROW's	CRSPVMF	450													
Lidar Closeout at Pinnacle Peak and Rogers	CRSPVMF	15													
Pinnacle Peak-Rogers ROW Agreement	CRSPVMF	6.100													
[0,100													
T-Line SubTotal		6,565													
		-,													
Substations															
Replacement of FX Capacitor Maintenance Breakers at Flagstaff, Glen Canyon,			!												
and Pinnacle Peak	CRSPVMF	2,000	200	50	150		200	200	50	150		200			
Completion of Flagstaff Breaker Replacement	CRSPVMF	150													
Main Battery Replacement and Room Addition at Pinnacle Peak	CRSPVMF	148													
Main Battery Replacement at Glen Canyon	CRSPVMF	71													
Completion of 230/130 kV Transformer AddItion at Garkane	CRSPVMF	950													
Reconfigure 69kV Yard at Glen Canyon Substation	CRSPVMF	5,300													
Substation SubTotal		8,619	200	50	150		200	200	50	150					
Communications															
Misc. Communications Facilities Replacement (CRSP) at PSM/TOW in FY12	CRSPVMF	385	35	10	25		35	35	10	25		35			
Microwave Upgrades at Mexican Hat	CRSPVMF	1,024													
WIN/CIP at Flagstaff, Pinnacle Peak, and Glen Canyon	CRSPVMF	60													
RTU Replacement at Flagstaff, Pinnacle Peak, Glen Canyon, and Navajo	CRSPVMF	640													
Radio Towers/Grounding at PSM and TOW	CRSPVMF	75													
Phase Shift Bus Differential Relay Replacement at Glen Canyon	CRSPVMF	95													
Unit Dropping Scheme at Flagstaff, Pinnacle Peak, and Glen Canyon	CRSPVMF	100													
Communication Buildings at Zilmer and Lolamai	CRSPVMF	501													
Communications SubTotal		2,880	35	10	25		35	35	10	25		35			
Control, Protection and Metering															
Protective Relay Replacements at Glen Canyon and Powell in FY12	CRSPVMF	1,542	110	110			110	110	110			110			
Mobile & Heavy Equipment															
Test Equipment Replacements (CRSP)	CRSPVMF	640	60		60		60	60		60		60			
						·									
Mobile & Heavy Equipment SubTotal		640	60		60		60	60		60		60			
Programmatic Improvements															
Physical Security Upgrades - Flagstaff	CRSPVMF	45													
Security Camera Upgrades - Glen Canyon	CRSPVMF	45													
						·					<u> </u>				
Programmatic Improvements SubTotal		90													
DSW FY12 CRSP CIP Grand Total		20.336	405	170	235		405	405	170	235		205			
DOWN 112 ONOF CIF Grand Total		20,000	700	170	200		703	703	170	200		200			

	Fund	PROJECT			FY18			FY19						
PROJECT	Power Sys		W Total	W PD	W Non-PD	O Total	FY TOTAL	W Total	W PD	W Non-PD	O Total	FY TOTAL		
						0 . 0 . 1					0 . 0			
Transmission Lines														
Environmental Support for Lands, Access Roads, and ROW's	CRSPVMF	450												
Lidar Closeout at Pinnacle Peak and Rogers	CRSPVMF	15												
Pinnacle Peak-Rogers ROW Agreement	CRSPVMF	6.100												
Filliacie Feak-Nogers NOW Agreement	CKSFVIVIF	0,100												
T-Line SubTotal		6.565					1							
1-Line SubTotal		6,565												
O Lorentono														
Substations														
Replacement of FX Capacitor Maintenance Breakers at Flagstaff, Glen Canyon,														
and Pinnacle Peak	CRSPVMF	2,000	200	50	150		200	200	50	150		200		
Completion of Flagstaff Breaker Replacement	CRSPVMF	150												
Main Battery Replacement and Room Addition at Pinnacle Peak	CRSPVMF	148					ļ					ļ		
Main Battery Replacement at Glen Canyon	CRSPVMF	71					ļ							
Completion of 230/130 kV Transformer AddItion at Garkane	CRSPVMF	950												
Reconfigure 69kV Yard at Glen Canyon Substation	CRSPVMF	5,300												
Substation SubTotal		8,619												
Communications														
Misc. Communications Facilities Replacement (CRSP) at PSM/TOW in FY12	CRSPVMF	385	35	10	25		35	35	10	25		35		
Microwave Upgrades at Mexican Hat	CRSPVMF	1,024												
WIN/CIP at Flagstaff, Pinnacle Peak, and Glen Canyon	CRSPVMF	60												
RTU Replacement at Flagstaff, Pinnacle Peak, Glen Canyon, and Navajo	CRSPVMF	640												
Radio Towers/Grounding at PSM and TOW	CRSPVMF	75												
Phase Shift Bus Differential Relay Replacement at Glen Canyon	CRSPVMF	95												
Unit Dropping Scheme at Flagstaff, Pinnacle Peak, and Glen Canyon	CRSPVMF	100												
Communication Buildings at Zilmer and Lolamai	CRSPVMF	501												
T														
Communications SubTotal		2,880	35	10	25		35	35	10	25		35		
		,												
Control, Protection and Metering												1		
Protective Relay Replacements at Glen Canyon and Powell in FY12	CRSPVMF	1.542	110	110			110	110	110			110		
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	OILOI VIVII	1,572	110	110			110	110	110			110		
	1						 					 		
Mobile & Heavy Equipment												1		
Test Equipment Replacements (CRSP)	CRSPVMF	640	60		60		60	60		60		60		
Test Equipment Replacements (ORSF)	CROFVIVIE	040	00		00		00	00		00		00		
Mobile & Heavy Equipment SubTotal	<u> </u>	640	60	<u> </u>	60		60	60		60		60		
Mobile & πeavy Equipment Sub10tal		040	00		00		60	00		00		60		
Dragrammatic Improvements												1		
Programmatic Improvements		L										-		
Physical Security Upgrades - Flagstaff	CRSPVMF	45					ļ							
Security Camera Upgrades - Glen Canyon	CRSPVMF	45					ļ					1		
	<u> </u>			<u> </u>			<u> </u>					<u> </u>		
Programmatic Improvements SubTotal		90												
· ·			•	_	•				•	•		_		
DSW FY12 CRSP CIP Grand Total		20,336	205	120	85		205	205	120	85		205		
DOW 1 112 Char CIP Grand Total		20,550	203	120	00		200	203	120	00		203		

	Fund	PROJECT	FY20						FY21						
PROJECT	Power Sys		W Total	W PD	W Non-PD	O Total	FY TOTAL	W Total	W PD	W Non-PD	O Total	FY TOTAL			
TROCEST	1 oner eye	IOIAL	Wilotai	*****	W NOITE	O rotar	III IOIAL	W Total	****	W ROLL D	O rotar	TTTOTAL			
Transmission Lines															
Environmental Support for Lands, Access Roads, and ROW's	CRSPVMF	450													
Lidar Closeout at Pinnacle Peak and Rogers	CRSPVMF	15			1										
Pinnacle Peak-Rogers ROW Agreement	CRSPVMF	6.100													
Fillilacie Feak-Nogers Now Agreement	CKSFVIVIF	0,100													
T-Line SubTotal		C FCF													
1-Line Sub lotai		6,565													
O Latertine															
Substations															
Replacement of FX Capacitor Maintenance Breakers at Flagstaff, Glen Canyon,															
and Pinnacle Peak	CRSPVMF	2,000	200	50	150		200	200	50	150		200			
Completion of Flagstaff Breaker Replacement	CRSPVMF	150													
Main Battery Replacement and Room Addition at Pinnacle Peak	CRSPVMF	148													
Main Battery Replacement at Glen Canyon	CRSPVMF	71													
Completion of 230/130 kV Transformer AddItion at Garkane	CRSPVMF	950													
Reconfigure 69kV Yard at Glen Canyon Substation	CRSPVMF	5,300													
Substation SubTotal		8,619													
Communications															
Misc. Communications Facilities Replacement (CRSP) at PSM/TOW in FY12	CRSPVMF	385	35	10	25		35	35	10	25		35			
Microwave Upgrades at Mexican Hat	CRSPVMF	1,024													
WIN/CIP at Flagstaff, Pinnacle Peak, and Glen Canyon	CRSPVMF	60													
RTU Replacement at Flagstaff, Pinnacle Peak, Glen Canyon, and Navajo	CRSPVMF	640													
Radio Towers/Grounding at PSM and TOW	CRSPVMF	75													
Phase Shift Bus Differential Relay Replacement at Glen Canyon	CRSPVMF	95													
Unit Dropping Scheme at Flagstaff, Pinnacle Peak, and Glen Canyon	CRSPVMF	100													
Communication Buildings at Zilmer and Lolamai	CRSPVMF	501													
[77.													
Communications SubTotal		2,880	35	10	25		35	35	10	25		35			
		,													
Control, Protection and Metering															
Protective Relay Replacements at Glen Canyon and Powell in FY12	CRSPVMF	1.542	110	110			110	110	110			110			
1 Total To North North North Control of the Control	CINOI VIVII	1,072	110	110			110	110	110			110			
					 		 								
Mobile & Heavy Equipment															
Test Equipment Replacements (CRSP)	CRSPVMF	640	60		60		60	60		60		60			
rest Equipment Replacements (ORSF)	CKSF VIVIE	040	00		00		00	00		00		00			
Mobile & Heavy Equipment SubTotal		640	60		60		60	60		60		60			
Mobile & neavy Equipment Sub1otal		040	θU		60		60	δU		00		00			
Dragrammatic Improvements															
Programmatic Improvements															
Physical Security Upgrades - Flagstaff	CRSPVMF	45													
Security Camera Upgrades - Glen Canyon	CRSPVMF	45													
Programmatic Improvements SubTotal		90		<u> </u>											
			•		-		-	•		-					
DSW FY12 CRSP CIP Grand Total		20,336	205	120	85		205	205	120	85		205			
DOWN 112 ONOF OIL Grand Total		20,000	200	120	UJ		200	200	120	00		200			